

NOTES UPON SOME FOSSIL REPTILIAN REMAINS FROM THE WARBURTON RIVER, NEAR LAKE EYRE.

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In the year 1859 Prof. R. Owen described and figured some fossils in the Phil. Trans. of the Royal Society, London, vol. CXLIX., consisting of three vertebræ of a gigantic land lizard from the (Pleistocene?) deposits forming the bed of a tributary of the Condamine River, West of Moreton Bay, and named it *Megalanian prisca*. In his description he points out its close relationship to the recent Varanidæ. For comparison with the fossils, figures are also given of the vertebræ of the *Varanus giganteus* from Central Australia.

In a second paper by the same author, which appeared in 1880, "dorsal," "sacral" and caudal vertebræ, a skull* and a fragment of the same are figured and described.

In the Proceedings of the Royal Society, London, 1886, Prof. R. Owen described and figured the sacrum and foot-bones, which, however, are stated by A. S. Woodward, Ann Mag. Nat. History, 1886, to be those of some large Marsupial. †

In 1888, A. S. Woodward, in a paper "On the Extinct Reptilian Genera *Megalanian* (Owen) and *Meiolania* (Owen)," gives a summary of previous observations, and proposes the new name *Meiolania Oweni* ‡ for a Chelonian, which name has also been adopted by Lydekker in the Catalogue of Fossil Reptilia, &c., in the British Museum.

Woodward further states—"It appears that under *Megalanian prisca* have been included (1) Lacertilian vertebræ and an occipital fragment, (2) Chelonian skull and tail-sheath, (3) Marsupial foot-bones."

The first necessarily form the type specimens of the genus and species, and the last are obviously at once excluded from consideration.

In the S.A. Government Geologist's Report for 1894, in a supplementary paper by Mr. R. Etheridge, junr., Palæontologist

* A. S. Woodward states this skull to belong to a Chelonian.

† Diprotodon (A. Z.).

‡ See British Museum Catalogue of Fossil Reptilia, &c., Part III., p. 166.

in the Australian Museum, Sydney, "On the Occurrence of *Megalania* (Owen) (*sensu stricto*) in South Australia," two vertebræ are figured and described: Plate I., figs. 1, 2, 3, and Plate II., figs. 1, 2. The first is stated to be "a dorsal vertebra, probably from an immature individual, &c. It appears to correspond well with the dorsal vertebræ figured by the late Sir R. Owen, F.R.S., in his first paper on *Megalania*." This is undoubtedly a true *Varanus* vertebra.

Plate II. figs. 1-2. represent a vertebra which is described as "one of the lumbar series, very much larger than the dorsal." This vertebra, however, does not belong to *Megalania*, but is a true Crocodilian vertebra, and evidently belongs to the same species of crocodile, of which three vertebræ have previously received by the S.A. Museum from Messrs. W. R. Cave & Co., in 1888.

These were obtained with the following fossils from the bed of the Warburton River, near Lake Eyre; probably from the same locality where Mr. Brown obtained his specimens. Fragments of lower jaw of *Nototherium*, fragments of *Diprotodon* bones, fragments of Kangaroo bones, dorsal vertebra of *Varanus* (*Megalania*) *priscus*, tail vertebra, ungual phalanx, phalanx, three vertebræ, fragments of dermal scutæ of Crocodile, fragments of carapace and plastron of two Chelonian species, *Chelodina insculpta*, De Vis, and *Chelymys uberrima*, De Vis, and fragments of skull of a Siluroid fish.

All these bones are more or less petrified; and judging from their appearance and their fragmentary and often water-worn condition, seem to have been washed out of the sand and clay banks by floods, as already stated by Mr. Brown in his report of 1894.

The deposit, from which these fossils originate, was not found by him, although he travelled about 50 miles up the river.

Lydekker, in the Catalogue of Fossil Reptilia in the British Museum, vol. I., page 284, points out the close relationship of *Varanus* (*Megalania*) *priscus* (Owen) to an extinct Indian species (*Varanus sivalensis*). This species, as well as *V. priscus*, compared with our recent forms, owns proportionally shorter and stouter-built vertebræ than the latter. Owen says in his paper, "The chief peculiarity of the Australian fossil Lizard is its great size; the vertebræ rival in bulk those of the largest living crocodiles. Its estimated length was about 20 feet."

The vertebræ have already been figured, but not the phalanx, the ungual phalanx (which measures over two inches in length), and which, as it appears to me, have not been found before.

The ungual phalanx agrees very well, excepting its enormous size, with the corresponding one of *Varanus giganteus*, the "Perentie," which is stated to attain a total length of eight feet.

Judging from the much smaller size of the Warburton River fossils in comparison with those from the Condamine River deposits, they appear to belong to a much smaller and hitherto undescribed species, for which I propose the name *VARANUS WARBURTONENSIS*.

In the following table measurements are given of one of the two vertebræ under consideration, and also one of those described by Prof. Owen from the Condamine River, Queensland.

	<i>Condamine R.</i>		<i>Warburton R.</i>	
	In.	Lines.	In.	Lines.
Length of centrum	3	3	2	4
Length of non-articular lower surface of centrum	2	0	1	4
Breadth of centrum, behind the ball ...	1	11	1	2
Vertical diameter of centrum behind the ball	1	4	0	9
Vertical diameter of cup	1	9	1	2
Transverse diameter of cup	2	5	1	6
Breadth of neural arch above the costal tubercles	4	7	2	6
Vertical diameter from highest part of neural arch	3	4	2	3
Transverse diameter of anterior outlet of neural canal	0	9	0	6
Transverse diameter of posterior outlet of neural canal	0	4	0	3
Vertical diameter of anterior outlet of neural canal	0	3	0	4
Vertical diameter of posterior outlet of neural canal	0	5	0	5
Longest diameter of anterior zygopophysis	1	6	0	11
Vertical diameter of costal tubercle ...	1	0	0	7
Transverse diameter of costal tubercle ...	0	7	0	6
Antero-posterior extent of base of neuro-pophysis	1	10	1	2